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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/761,472

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Morris Dilmore

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2619

7590

10/01/2007

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EXAMINER

ROE, JESSEE RANDALL

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

10/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/761,472		DILMORE ET AL.	
	Examiner		Art Unit	
	Jessee Roe		1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,21-26 and 28-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 21-26 and 28-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 July 2007 has been entered.

Status of the Claims

Claims 1-2, 21-26, and 28-39 are pending wherein claims 3-20 and 27 are canceled and claim 39 is new.

Status of Previous Rejections

The previous rejections of claims 1-2, 23-24 and 28-38 under 35 U.S.C. 103(a) as being unpatentable over Yoshie et al. (US 5,454,883) is withdrawn in view of the Applicant's arguments and Declaration filed 9 July 2007. The previous rejection of claims 2, 22-26, 28-34 and 36-38 under 35 U.S.C. 103(a) as being unpatentable over Gondo (US 3,574,602) is withdrawn in view of the Applicant's arguments.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 23-24, 28 and 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot (US 5,695,576) alone, or alternatively with evidence from the ASM Handbook Volume 1.

In regards to claim 1, Beguinot ('576) discloses an alloy steel composition with high tensile strength and excellent ductility having a composition in comparison with that of the instant invention as shown in the table below (abstract).

Element	From Instant Claims (weight percent)	Beguinot ('576) (weight percent)	Overlapping Range (weight percent)
C	about 0.16 – about 0.35	0.15 – 0.35	about 0.16 – 0.35
Mn	0 – about 0.85	0.1 – 4.5	0.1 – about 0.85
Si	0 – about 1.25	0 – 3	0 – about 1.25
Cr	about 1.50 – about 3.25	0 – 6	about 1.50 – about 3.25
Ni	0 – about 5.00	0 – 9.00	0 – 9.00
Mo	0 – about 0.55	0 – 3.00	0 – about 0.55
W	about 1.17 – about 3.25	0 – 6	about 1.17 – about 3.25
V	about 0.05 – about 0.30	0 – 5	about 0.05 – about 0.30
Cu	0 – about 0.50	0	0
P	0 – about 0.015	impurity	impurity
S	0 – about 0.012	impurity	impurity
Ca	0 – about 0.02	0 – 0.2	0 – about 0.02
N	0 – about 0.14	0 – 0.30	0 – about 0.14
Al	0 – about 0.05	0 – 3	0 – about 0.05
Fe	Essential Balance	Essential Balance	Essential Balance

Beguinot ('576) discloses an alloy steel composition that does not necessitate the addition of phosphorus and sulfur as shown above, but Beguinot ('576) does not

specify the contents of the impurity elements such as phosphorus and sulfur.

The ASM Handbook Volume 1 discloses that steel intended for forming, drawing, or bending would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent in order to prevent cracking or splitting (pg. 577, col. 1).

Therefore, it would be expected that the alloy steel, as disclosed by Beguinot ('576), would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent, as disclosed by the ASM Handbook Volume 1, in order to prevent cracking or splitting, as disclosed by the ASM Handbook Volume 1 (pg. 577, col. 1).

The Examiner notes that the ranges disclosed by Beguinot ('576) with evidence from the ASM Handbook Volume 1 for carbon, manganese, silicon, chromium, nickel, molybdenum, tungsten, vanadium, copper, phosphorus, sulfur, calcium, nitrogen, and aluminum in the low alloy steel are within the ranges claimed of the instant invention, which is a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ranges from the ranges disclosed by Beguinot ('576) with evidence from the ASM Handbook Volume 1 because Beguinot ('576) with evidence from the ASM Handbook Volume 1 disclose the same utility throughout the disclosed ranges.

With respect to limitations of the alloy steel having an ultimate tensile strength of about 233-270 ksi, Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 % of claims 1 and 32-35,

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Beguinet ('576) with evidence from the ASM Handbook Volume 1 discloses an overlapping composition, a substantially similar method of production, and tensile strengths from above 1200 MPa (174 ksi) up to 1945 MPa (282 ksi) (col. 2, lines 1-5 and col. 8, lines 20-45). Therefore, a Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 %. See MPEP 2112.01 I.

In regards to claims 23 and 24, Beguinet ('576) discloses alloy steel with high tensile strength and excellent ductility having a composition in comparison with that of the instant invention as shown in the table below (abstract).

Element	From Instant Claims (weight percent)	Beguinet ('576) (weight percent)	Overlapping Range (weight percent)
C	about 0.28	0.15 – 0.35	about 0.28
Mn	0 – about 0.85	0.1 – 4.5	0.1 – 0.85
Si	about 1.00	0 – 3	about 1.00
Cr	about 1.50 – about 3.25	0 – 6	about 1.50 – about 3.25
Ni	about 1.03	0 – 9	about 1.03
Mo	0 – about 0.55	0 – 3	0 – about 0.55
W	about 1.17	0 – 6	about 1.17
V	about 0.05 – about 0.30	0 – 5	about 0.05 – about 0.30
Cu	0 – about 0.50	0 – 0.50	0
P	0 – about 0.015	impurity	impurity
S	0 – about 0.012	impurity	impurity
Ca	about 0.02	0 – 0.20	about 0.02
N	0 – about 0.14	0 – 0.30	0 – about 0.14
Al	0 – about 0.05	0 – 3	0 – about 0.05
Fe	Balance	Balance	Balance

Beguinet ('576) discloses an alloy steel as shown above that does not necessitate the addition of phosphorus or sulfur. However, Beguinet ('576) does not specify the contents of impurity elements such as phosphorus and sulfur.

The ASM Handbook Volume 1 discloses that steel intended for forming, drawing, or bending would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent in order to prevent cracking or splitting (pg. 577, col. 1).

Therefore, it would be expected that the alloy steel, as disclosed by Beguinot ('576), would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent, as disclosed by the ASM Handbook Volume 1, in order to prevent cracking or splitting, as disclosed by the ASM Handbook Volume 1 (pg. 577, col. 1).

The Examiner notes that the ranges disclosed by Beguinot ('576) with evidence from the ASM Handbook Volume 1 for carbon, manganese, silicon, chromium, nickel, molybdenum, tungsten, vanadium, copper, phosphorus, sulfur, calcium, nitrogen, and aluminum in the low alloy steel are within the ranges claimed of the instant invention, which is a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ranges from the ranges disclosed by Beguinot ('576) with evidence from the ASM Handbook Volume 1 because Beguinot ('576) with evidence from the ASM Handbook Volume 1 disclose the same utility throughout the disclosed ranges.

With respect to limitations of the alloy steel having an ultimate tensile strength of about 233-270 ksi, Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 % of claims 23-24, 28, 30-31, and 36-38, Beguinot ('576) with evidence from the ASM Handbook Volume 1

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discloses an overlapping composition, a substantially similar method of production, and tensile strengths from above 1200 MPa (174 ksi) up to 1945 MPa (282 ksi) (col. 2, lines 1-5 and col. 8, lines 20-45). Therefore, a Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 %.

See MPEP 2112.01 I.

Claims 2, 29 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot (US 5,695,576) alone, or alternatively with evidence from the ASM Handbook Volume 1, in view of Yoshie et al. (US 5,454,883).

In regards to claims 2 and 39, Beguinot ('576) discloses an alloy steel composition with high tensile strength and excellent ductility having a composition in comparison with that of the instant invention as shown in the table below (abstract).

Element	From Instant Claims (weight percent)	Beguinot ('576) (weight percent)	Overlapping Range (weight percent)
C	about 0.28	0.15 – 0.35	about 0.28
Mn	about 0.74	0.1 – 4.5	about 0.74
Si	about 1.00	0 – 3	about 1.00
Cr	about 2.75	0 – 6	about 2.75
Ni	about 1.03	0 – 9	about 1.03
Mo	about 0.36	0 – 3	about 0.36
W	about 1.17	0 – 6	about 1.17
V	about 0.06	0 – 5	about 0.06
Cu	about 0.10	-	-
P	about 0.012	impurity	impurity
S	about 0.003	impurity	impurity
Ca	about 0.02	0 – 0.20	about 0.02
N	about 0.0073	0 – 0.30	about 0.0073
Al	about 0.011	0 – 3	about 0.011
Fe	Essential Balance	Essential Balance	Essential Balance

Beguinot ('576) discloses an alloy steel as shown above that does not necessitate the addition of phosphorus or sulfur. However, Beguinot ('576) does not

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specify the contents of impurity elements such as phosphorus and sulfur.

The ASM Handbook Volume 1 discloses that steel intended for forming, drawing, or bending would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent in order to prevent cracking or splitting (pg. 577, col. 1).

Therefore, it would be expected that the alloy steel, as disclosed by Beguinot ('576), would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent, as disclosed by the ASM Handbook Volume 1, in order to prevent cracking or splitting, as disclosed by the ASM Handbook Volume 1 (pg. 577, col. 1).

Beguinot ('576) alone, or alternatively with evidence from the ASM Handbook Volume 1 discloses a steel alloy as shown above that would be rapidly cooled to form martensite (col. 6, lines 15-45), but Beguinot ('576) alone, or alternatively with evidence from the ASM Handbook Volume 1 do not specify the addition of copper.

Yoshie et al. ('883) discloses that copper, nickel, chromium, molybdenum, and tungsten would be functionally equivalent in improving the quench-hardening of steel in an analogous steel alloy composition (col. 11, lines 1-35 and col. 15, line 61 – col. 16, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute copper for molybdenum, nickel, chromium, or tungsten, as disclosed by Yoshie et al. ('883), within the ranges of molybdenum, nickel, chromium, or tungsten specified for the steel alloy, as disclosed by

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Beguinet ('576), because copper, nickel, chromium, molybdenum, and tungsten would be equivalent in improving quench-hardenability, as disclosed by Yoshie et al. ('883) (col. 11, lines 1-35 and col. 15, line 61 – col. 16, line 3). See MPEP 2144.06.

With respect to limitations of the alloy steel having an ultimate tensile strength of about 233-270 ksi, about 244-270 ksi, a Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 % of claims 2, 29 and 39, Beguinet ('576) with evidence from the ASM Handbook Volume 1 discloses an overlapping composition, a substantially similar method of production, and tensile strengths from above 1200 MPa (174 ksi) up to 1945 MPa (282 ksi) (col. 2, lines 1-5 and col. 8, lines 20-30). Therefore, a Charpy V-notch impact strength of about 20-43 ft-lb at -40°F, and a ductility high rate strain-to-failure of about 15.1 to about 16.6 %. See MPEP 2112.01 I.

Claims 1 and 32-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gondo et al. (US 3,574,602) alone, or alternatively with evidence from the ASM Handbook Volume 1.

In regards to claim 1, Gondo et al. ('602) discloses an alloy steel composition with high tensile strength having a composition in comparison with that of the instant invention as shown in the table below (col. 6, lines 27-45).

Element	From Instant Claims (weight percent)	Gondo et al. ('602) (weight percent)	Overlapping Range (weight percent)
C	about 0.16 – about 0.35	0.05 – 0.80	about 0.16 – about 0.35
Mn	0 – about 0.85	0.30 – 2.00	0.30 – about 0.85
Si	0 – about 1.25	0.05 – 2	0.05 – about 1.25
Cr	about 1.50 – about 3.25	0.05 – 6	about 1.50 – about 3.25
Ni	0 – about 5.00	0.05 – 5	0.05 – about 5
Mo	0 – about 0.55	0.05 – 1	0.05 – about 0.55

Element	From Instant Claims (weight percent)	Gondo et al. ('602) (weight percent)	Overlapping Range (weight percent)
W	about 1.17 – about 3.25	0 – 1	-
V	about 0.05 – about 0.30	0.05 – 1	0.05 – about 0.30
Cu	0 – about 0.50	0.03 – 0.50	0.03 – about 0.50
P	0 – about 0.015	impurity	impurity
S	0 – about 0.012	impurity	impurity
Ca	0 – about 0.02	0	0
N	0 – about 0.14	0	0
Al	0 – about 0.05	0	0
Fe	Essential Balance	Essential Balance	Essential Balance

Gondo et al. ('602) discloses an alloy steel composition that does not necessitate the addition of phosphorus and sulfur as shown above, but Gondo et al. ('602) does not specify the contents of the impurity elements such as phosphorus and sulfur.

The ASM Handbook Volume 1 discloses that steel intended for forming, drawing, or bending would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent in order to prevent cracking or splitting (pg. 577, col. 1).

Therefore, it would be expected that the alloy steel, as disclosed by Gondo et al. ('602), would have phosphorus and sulfur contents less than 0.035 weight percent and less than 0.040 weight percent, as disclosed by the ASM Handbook Volume 1, in order to prevent cracking or splitting, as disclosed by the ASM Handbook Volume 1 (pg. 577, col. 1).

The Examiner notes that the ranges disclosed by Gondo et al. ('602) with evidence from the ASM Handbook Volume 1 for carbon, manganese, silicon, chromium, nickel, molybdenum, tungsten, vanadium, copper, phosphorus, sulfur, calcium, nitrogen,

and aluminum in the low alloy steel are within the ranges claimed of the instant invention, which is a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ranges from the ranges disclosed by Gondo et al. ('602) with evidence from the ASM Handbook Volume 1 because Gondo et al. ('602) with evidence from the ASM Handbook Volume 1 disclose the same utility throughout the disclosed ranges.

Still regarding claim 1, the Examiner asserts that 1 weight percent tungsten would be close enough to about 1.17 weight percent tungsten, as disclosed by Gondo et al. ('602) to establish a prima facie case of obviousness absent evidence to the contrary. See MPEP 2144.05 I.

Still regarding claim 1 and in regards to claims 32-33 and 35, Gondo et al. ('602) discloses tensile strengths in the range of 130-159 kg/mm² (184-226 ksi), which would meet the limitations of about 233-270 ksi of claim 1, about 244 ksi of claim 32, about 234 ksi of claim 33, and about 248 ksi of claim 35 because the instant specification does not define "about" to exclude such values. Further, the alloy steel of Gondo et al. ('602) would inherently have a Charpy V-notch impact strength of about 20-43 at -40°F and a strain-to-failure rate of about 15.1 to about 16.6% because Gondo et al. ('602) disclose comparable tensile strength and a substantially composition as that of the instant invention. See MPEP 2112.01 I.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gondo et al. (3,574,602) as applied to claim 1 above, and further in view of Lyon

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(US 2,942,339).

In regards to claim 21, Gondo et al. ('602) discloses a steel alloy as shown above having high tensile strength, but Gondo et al. ('602) do not specify using the steel as a bomb casing material.

Lyon ('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Because Gondo et al. ('602) teach low-carbon steels having strength and ductility, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the low-carbon steel, as disclosed by Gondo et al. ('602), as a bomb casing, as disclosed by Lyon ('339), because Lyon ('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Claims 21 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot (US 5,695,576) alone, or alternatively with evidence from the ASM Handbook Volume 1, and further in view of Lyon (US 2,942,339).

In regards to claim 21, Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1 discloses a steel alloy as shown above having high tensile strength, but Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1 do not specify using the steel as a bomb casing material.

Lyon ('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Because Beguinot ('576), or alternatively with evidence from the ASM

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Handbook Volume 1 teach low-carbon steels having strength and ductility, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the low-carbon steel, as disclosed by Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1, as a bomb casing, as disclosed by Lyon ('339), because Lyon ('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot (US 5,695,576) alone, or alternatively with evidence from the ASM Handbook Volume 1, in view of Yoshie et al. (US 5,454,883), and further in view of Lyon (US 2,942,339).

In regards to claim 22, Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1, in view of Yoshie et al. ('883) discloses a steel alloy as shown above having high tensile strength, but Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1 do not specify using the steel as a bomb casing material.

Lyon ('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Because Beguinot ('576), or alternatively with evidence from the ASM Handbook Volume 1, in view of Yoshie et al. ('883) discloses low-carbon steels having strength and ductility, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the low-carbon steel, as disclosed by Beguinot (JP '738), or alternatively with evidence from the ASM Handbook Volume 1, in view of Yoshie et al. ('883), as a bomb casing, as disclosed by Lyon ('339), because Lyon

('339) discloses that low-carbon steels having high strength and ductility are conventionally used for making bomb casings (col. 2, lines 40-50).

Response to Arguments

Applicant's arguments filed 9 July 2007 have been fully considered but they are not persuasive.

First, the Applicant primarily argues that Gondo et al. ('602) does not, contrary to the Examiner's extrapolation, disclose an alloy having tensile strengths comparable to the ultimate tensile strengths of 233-270 ksi. In response the Examiner notes that language of the claims for the tensile strengths include the term "about". See MPEP 2111.01 I and MPEP 2111.01 III. The Examiner further notes that the term "about" used in claims 1, 32-33 and 35 is not defined by the instant specification to exclude the conventional deviation that one of ordinary skill would expect. Therefore, the Examiner asserts that the tensile strength greater than 100 kg/mm^2 (142 ksi) and examples of up to 159 kg/mm^2 226 ksi, as disclosed by Gondo et al. ('602), would at least touch the tensile strengths of about 233-270 ksi of claim 1, about 244 ksi of claim 32, about 234 ksi of claim 33, and about 248 ksi of claim 35.

Response to Declaration

The Declaration of John Paules under 37 CFR 1.132 filed 9 July is insufficient to overcome the rejection of claims 1, 32-33 and 35 based upon Gondo et al. ('602) as set forth in the last Office action because:

First, the Applicant primarily argues that Gondo et al. ('602) could not achieve such high values of tensile strength because the Applicant alleges that Gondo et al. ('602) would only have access to conventional processing. In response, Gondo et al. ('602) discloses tensile strengths greater than 100 kg/mm^2 and examples that achieve up to 226 ksi. The claim language, as discussed in the Response to Arguments above, does not exclude such tensile strength values as claimed in the instant invention. Further, the determination of patentability of a product is based on the product itself. The patentability of a product does not depend on its method of production. If the product is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See MPEP 2113.

Second, the Applicant primarily argues that Fig. 17.2, which demonstrates a plot of hardness as dependent upon tempering temperature, and Fig. 17.4, which demonstrates elongation, reduction of area, yield point and tensile strength. The Examiner notes that Gondo et al. ('602) meet the limitations set forth by the claims as discussed above. The Examiner notes Fig. 17.2 and Fig. 17.4 do not include the Charpy V-notch impact strength at -40°F and ductility high rate strain-to-failure. Therefore, a comparison with Gondo et al. ('602) could not be made.

Third, the Applicant primarily argues that the Yoshie et al. ('883) discloses typographical errors with respect to tensile strength. In response, the Examiner agrees. The previous rejections of claims 1-2, 23-24 and 28-38 under 35 U.S.C. 103(a) as being unpatentable over Yoshie et al. (US 5,454,883) is withdrawn in view of this argument.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR


ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700